

JPRS 71929

26 September 1978

PEOPLE'S REPUBLIC OF CHINA  
PLANT AND INSTALLATION DATA  
No. 3

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## I. METALLURGICAL INDUSTRY

Item: Hu-t'ou Electric Smelting Plant  
[3275 7333 7193 0396 0617]

Location: An-ch'i County, Fukien Province, PRC

Data: This newly built plant produces principally carbide, graphite electrode, and calcium-magnesium-phosphate. In addition to meeting local needs, this plant ships its carbide and graphite electrodes to other provinces.

Source: Hong Kong CHUNG-KUO HSIN-WEN 2 Aug 78 p 7

Item: An-ch'i Iron Smelting Plant  
[1344 3305 3550 6993 0617]

Location: An-ch'i County, Fukien Province, PRC

Data: Equipped with two blast furnaces, this plant turns out 1,200 metric tons of pig iron annually.

[There are now 29 county-run factories in An-ch'i County.]

Source: Hong Kong CHUNG-KUO HSIN-WEN 2 Aug 78 p 7

Item: P'an-lo Iron Mine  
[3382 3157 6993 4349]

Location: An-ch'i County, Fukien, PRC

Data: Large quantities of iron ore extracted from this mine are being shipped to the San-ming Iron and Steel Mill in Fukien and the Shang-hai Iron and Steel for refining.

Source: Hong Kong CHUNG-KUO HSIN-WEN 2 Aug 78 p 7

Item: Shang-hai Steel Pipe Plant  
[0006 3189 6921 4619 0617]

Location: Shanghai, PRC

Data: This plant's new workshop employing a new technology on steel-pipe tensile force was put into operation on 2 August. Equipped with the first set of a new rolling device designed and manufactured in China, the workshop will have an annual capacity of more than 40,000 metric tons of steel pipe. The new equipment can reduce the diameter of a pipe, reduce the thickness of its wall, and stretch it to a length of more than 20 meters, as compared to the 12-meter limit of the old equipment. The workshop will be able to produce seamless and thin steel pipes with a single process, instead of the formerly required five processes.

Source: Shanghai City Service in Mandarin 1300 GMT 2 Aug 78 OW

Item: Kan-su Metallurgical Plant No 1  
[3927 5126 4574 0001 0396 6855 0617]

Location: Lanchow, Kansu, PRC

Data: With the help of the work group of the Ministry of Metallurgical Industry, the party committee of this plant has boldly mobilized the masses to conscientiously conduct investigative work and the "three great publicities" and to conduct education in making a comparison between the two lines, thus steadily deepening the struggle to expose and criticize the "gang of four" and greatly improving production. The plant had been in the red ever since its founding in 1970. Now, the plant has gotten out of the red. It made a profit of over 100,000 yuan in the first half of this year. Following the smashing of the "gang of four," the plant's leadership group could not reach unanimity of views and did not mobilize the masses, thus failing to launch the movement to expose and criticize the "gang of four." After the stationing of the work group of the Ministry of Metallurgical Industry in the plant

[Continued on card 2]

Source: Lanchow Kansu Provincial Service in Mandarin 1300 GMT 30 Aug 78 HK

[Continued from card 1]

Item: Kan-su Metallurgical Plant No 1  
[3927 5126 4574 0001 0396 6855 0617]

Location: Lanchow, Kansu, PRC

Data: this February, much improvement has been made. While conducting investigative work, some people in the plant publicly resisted the checkup on issues concerning beating, smashing, and looting and opposed the integration of the investigative movement and the criticism of the Lin Piao line. With regard to those individual leading persons who interfered with and disrupted the movement, the work group and the plant's party committee resolutely dismissed them from their leading posts and seriously exposed and criticized their mistakes. At present, a new party committee has been set up in the plant. The new party committee is determined to win a complete victory in investigative work.

Source: Lanchow Kansu Provincial Service in Mandarin 1300 GMT 30 Aug 78 HK

Item: Pen-ch'i Iron and Steel Company  
[2609 3305 6921 6993 0361 0674]

Location: Pen-ch'i, Liaoning, PRC

Data: In July 1978, the No 1 Iron Smelting Plant of this company over-fulfilled its monthly pig iron production plan 2 days ahead of schedule, raised its pig iron quality to 99.98 percent, and reduced its coke ratio. In the first 6 months of this year, this plant saved 72,000 yuan of state funds by lowering iron smelting costs.

Source: Shenyang Liaoning Provincial Service in Mandarin 1100 GMT  
5 Aug 78 SK



## II. TRANSPORTATION EQUIPMENT INDUSTRY

Item: Shang-hai Port  
[0006 3189 3263]

Location: Shanghai, PRC

Data: This port, China's biggest, is currently undergoing transformation. It is planned that by 1990, most of the port's docks will be highly mechanized special-purpose ones and operated under a streamlined management.

Expansion of the harbor facilities started in 1973 when there were only 39 deep-water berths for ocean-going ships. Eleven new ones have since been built, including berths able to accommodate 25,000-ton ships. Another 50 deep-water berths will be built by 1990.

Already the turnaround time for ships has been shortened by 3.1 days compared with 1973 and delays have been basically eliminated. This year the port will handle an estimated 72 million tons against 40 million in 1973. The port has trade ties with over 100 countries and regions and receives more than 1,000 foreign ships a year.

[Continued on card 2]

Source: Peking NCNA in English 0738 GMT 11 Sep 78 OW

[Continued from card 1]

Item: Shang-hai Port  
[0006 3189 3263]

Location: Shanghai, PRC

Data: Among the newly built docks is the port's Tenth Loading and Unloading Zone with eight deep-water berths and another for container ships.

An important feature of the port's transformation is the stepping up of mechanized loading and unloading. Already seven special-purpose docks have been built and four mechanized transportation lines installed.

Some 85,000 square meters of new warehouses and 200,000 square meters of open depots have been added.

The dockers and technicians have raised efficiency by introducing many innovations.

The expansion program includes newly built residential quarters and recreation centers for the dockers.

Source: Peking NCNA in English 0738 GMT 11 Sep 78 OW

Item:       Pai-se Port  
          [4102 5331 3263 0656]

Location:   Pai-se, western Kwangsi, PRC

Data:       This port is equipped with two new passenger and cargo reinforced concrete wharves. The present tonnage handled annually at this port is 13 times above that of the pre-liberation period. On-shore facilities here include a three-storied passenger transportation building, seven warehouses capable of handling 10,000 metric tons of supplies and two spacious cargo yards equipped with heavy machinery and equipment which can load and unload over 120 metric tons of freight.

Source:     Hong Kong CHUNG-KUO HSIN-WEN 12 Aug 78 p 5

Item:       Ta-lien Port  
          [1129 6647 3263]

Location:   Lu-ta [Dairen], Liaoning, PRC

Data:       The volume of cargo handled at this port during the first 6 months of 1978 was 17.9 percent above that of the same 1977 period, a new high for the port. This achievement was attributed to the trial implementation of the time-wage incentive system.

Source:     Hong Kong CHUNG-KUO HSIN-WEN 29 Jul 78 pp 1-2

Item: Shih-tao Fishing Port  
[4258 1497 3342 3263]

Location: Southern part of Jung-ch'eng County, Shantung, PRC

Data: Since it was completed in 1976, this fishing port project, one of China's largest, has been accommodating thousands of vessels and several hundred thousand metric tons of marine products have been shipped from here to other parts of China annually. The bay of this port covers an area of 360,000 square meters. Measuring 922 meters in length, the quaywall permits more than 1,000 fishing boats to be moored together. The 104-meter-wide jetty allows 40 fishing vessels to be loaded and unloaded simultaneously.

Source: Hong Kong CHUNG-KUO HSIN-WEN 22 Jul 78 p 6

Item: Chiang-nan Shipyard  
[3068 0589 6644 5307 0617]

Location: Shanghai, PRC

Data: This shipyard and the Shang-hai, Tung-hai, and Hu-tung shipyards in Shanghai are developing small-scale power generation to meet their own power requirements, thus making available more power for agricultural purposes such as irrigation and drainage.

Source: Shanghai City Service in Mandarin 0000 GMT 25 Jul 78 OW

Item: Ta-lien Industrial and Mining Rolling Stock Plant  
[1129 6647 1562 4349 6508 6538 0617]

Location: Lu-ta [Dairen], Liaoning, PRC

Data: In 1977, beside overfulfilling the state quotas for output value and output volume by 15 percent, this plant conserved 920,000 kilowatt hours of electricity, 50 metric tons of lubricating oil, 380 metric tons of coal and coke, 1,500 metric tons of rolled steel, and 600 cubic meters of lumber, valued at 1.6 million yuan.

This plant is equipped with 1,900 pieces of equipment, including 17 heating furnaces.

Source: Peking KWANGMING DAILY 11 Jul 78 p 4

Item: Pai-se Prefecture  
[4102 5331 0966 0575]

Location: Pai-se, Kwangsi, PRC

Data: In late 1977 workers in this prefecture successfully trial manufactured a limited number of "Yu-chiang Brand" [0671 3068 3654] motor vehicles [trucks] which are resistant to heat and vibrations, has high gradability, and is suitable for use in the hilly regions. Serial production of the "Yu-chiang Brand" motor vehicle is under way.

Source: Hong Kong CHUNG-KUO HSIN-WEN 13 Aug 78 p 13

### III. ELECTRONIC AND PRECISION EQUIPMENT INDUSTRIES

Item: Chi-lin City Optical Instrument Plant  
[0679 2651 1579 0342 1331 0308 0892 0617]

Location: Kirin City, Kirin Province, PRC

Data: A joint research and manufacturing group organized by this plant, the Kirin Provincial Metallurgical Research Institute, Kirin Applied Chemistry Institute, Ch'ang-ch'un Optical Machinery Research Institute, and Ch'ang-ch'un City Optical Instrument Plant No 1 designed and successfully trial produced within a short period of time a YJG-1 liquid laser micro-area spectrum analyser. Equipped with all Chinese-made parts, the instrument is composed of the main machine which includes a laser, an optical microscopic sighting system, and adjusting mechanisms, and an electrical case that houses a xenon light power source, an auxiliary electrode power source, and other sub-circuits.

This analyser is being used extensively in the geological, metallurgical, electronics, machine-building, scientific research, national defense, and public security departments.

Source: Peking K'O-HSUEH SHIH-YEN [Scientific Experiment] No 8, Aug 78 p 36

Item: Shang-hai Radio Plant No 14  
[0006 3184 3541 4848 7193 0577 0934 0617]

Location: Shanghai, PRC

Data: In the course of developing the production of large-scale integrated circuits, this plant recently succeeded in trial producing a single piece large-scale integrated circuit for a pocket-sized computer. The circuit is made of a silicon plate [wafer], the size of a soybean, fitted with several thousand parts. It is technically complex and high in precision.

[Source provides a photograph showing two technicians at the plant studying ways to improve the large-scale integrated circuit.]

Source: Shanghai K'O-HSUEH HUA-PAO [Science Pictorial] No 6, Jun 78 p 13

Item: Yueh-tung [Eastern Kwangtung] Television Relay Station  
[4727 2639 7193 6018 6567 2330 0669]

Location: Feng-shun County, Kwangtung, PRC

Data: A new relay station built on the Hung-t'u Peaks of the Pa-hsiang Mountains by this station has begun trial broadcasting programs emanating from the Kwangtung Television Station. The completion of the new relay station will permit some 20 million people in a number of counties in the Mei Hsien, Shan-t'ou, and Hui-yang prefectures and in some of the localities of Kiangsi and Fukien provinces to watch television. Using entirely Chinese-made machine parts, this station is capable of broadcasting programs in colors as well as black and white.

Source: Hong Kong CHUNG-KUO HSIN-WEN 7 Aug 78 p 4

Item: Hang-chou Special-Purpose Radio Equipment Plant No 2  
[2254 1558 3541 4848 7193 1413 3938 6080 0271 0059 0617]

Location: Hangchow, Chekiang, PRC

Data: Workers here designed and successfully built a BTTY-1 stereo-projector. The instrument has a magnifying power of 20, 30, and 50 times. The size of the screen is 155x125 mm and the image displayed on the screen is positive. The light source is from a 12V, 50W halogen lamp. The projector can take the place of a stereo-microscope and is used in the welding and inspection processes in the electronic industry.

Source: Shanghai K'O-HSUEH HUA-PAO [Science Pictorial] No 6, Jun 78 p 16

Item: Chinese Academy of Measurement Science  
[0022 0948 6060 6852 4430 1331 7108]

Location: Peking, PRC

Data: In cooperation with the Shensi Academy of Machine-Building, workers and employees at this academy successfully built after 2 years' efforts two double frequency laser interferometers, using all Chinese-made parts. The measurable length of the instrument is 0-61 meters; maximum allowable drift velocity forward is 300 mm/second and backward, 200 mm/second; minimum rate of resolution is 0.08 mm. The instrument's measuring precision can reach  $5 \times 10^{-4}$ . The instrument has been used on a trial basis in Peking, Sian, and Dairen and its performance is stable.

Source: Peking K'O-HSUEH SHIH-YEN [Scientific Experiment] No 8, Aug 78 p 36

Item: Chiang-nan Radio Plant  
[3068 0589 3541 4848 7193 0617]

Location: Shanghai, PRC

Data: In cooperation with the Shang-hai Coal Mining Machinery Plant, this plant successfully built a gas warning breaker instrument. Comprised of three parts--an ABD-1 indicator, a CGH-1 transmitter, and an SGX-1 sound light signal device, it is an effective instrument for insuring safety in the coal pits. The monitoring range of the instrument is 0-2.5% CH<sub>4</sub> and allowable error is  $\leq \pm 0.1\%$  CH<sub>4</sub>; the warning breaker range can be adjusted at will within 0.5-2% CH<sub>4</sub>; error is  $\leq 0.2\%$  CH<sub>4</sub> (including indicating error); power source voltage is 127, 380, and 660 volts, respectively; frequency is 50 hz; allowable wave motion range of voltage is +15% to -20%; and power consumption does not exceed 50 watts.

Source: Peking K'O-HSUEH SHIH-YEN [Scientific Experiment] No 8, Aug 78 p 36

Item: Pu-i Water Conservancy Electric Measuring Instruments Plant  
[0592 1355 3055 0448 7193 2232 0308 0892 0617]

Location: P'ing-yao County, Shansi, PRC

Data: The electric measuring instrument employing the method of exciting polarization produced by this plant is being used by Hsi-yang County's Bureau of Water Conservancy on a trial basis to locate water. This instrument bases the findings on four parameters to determine the presence of water and is more accurate than the instrument which employs the specific resistance method. Excellent results have been achieved in finding water resources in Li-chia-kou by using this new instrument.

Source: Peking KWANGMING DAILY 19 Aug 78 p 2

Item: Chi-lin City Optical Machinery Experimental Plant  
[0679 2651 1579 0342 2623 1395 7526 0617]

Location: Kirin City, Kirin Province, PRC

Data: In cooperation with the Kirin Medical College, this plant recently produced China's first cell laser microscope. The Kirin Medical College started to conduct research on the "biological effects of laser" in 1974 and, after 1 year's efforts, produced a prototype. Subsequently, technical personnel of the medical school and this plant cooperated in improving the prototype on the basis of the problems uncovered in the course of using the instrument and turned out the XJX-1 cell laser microscope.

Source: Hong Kong CHUNG-KUO HSIN-WEN 31 Jul 78 p 3



Item: Ha-erh-pin Industrial University  
[0761 1422 3453 1562 2814 1129 1331]

Location: Harbin, Heilungkiang, PRC

Data: In cooperation with the Shang-hai Component Parts Plant No 5 and other units, the semiconductor equipment department of this university has conducted systematic research on the minute defects in silicon epitaxial layers. After more than 3 years of effort, it preliminarily clarified the cause of such defects and the method for eliminating them, thus making an important contribution in enhancing the quality of our country's silicon epitaxial wafers and the output rate of semiconductor equipment made from such wafers. By using this research in its production during the second half of 1977, the Shang-hai Component Parts Plant No 5 enhanced the quality of its silicon epitaxial wafers and greatly raised the output rate of its semiconductor equipment. During the period, in production of a single variety, it not only raised the output value by 4.36 million yuan but also saved 187,000 yuan worth of such wafers. If this research achievement were popularized

[Continued on card 2]

Source: Peking NCNA Domestic Service in Chinese 0147 GMT Sep 78 OW

[Continued from card 1]

Item: Ha-erh-pin Industrial University  
[0761 1422 3453 1562 2814 1129 1331]

Location: Harbin, Heilungkiang, PRC

Data: for use in the semiconductor industry throughout the country, its economic results would be even more spectacular.

The silicon epitaxial wafers are an important material in the manufacture of semiconductor equipment, and their prices are very high. Because of the existence of minute defects in the silicon epitaxial layers, the quality of such wafers and the output of semiconductor equipment are lowered. The search for the cause of such defects has always been an important topic of research in the world's semiconductor field.

[Continued on card 3]

Source: Peking NCNA Domestic Service in Chinese 0147 GMT Sep 78 OW

[Continued from card 2]

Item: Ha-erh-pin Industrial University  
[0761 1422 3453 1562 2814 1129 1331]

Location: Harbin, Heilungkiang, PRC

Data: From that time on, based on their success, they conducted numerous researches on the prevention of such defects and devised a method for eliminating them. They instituted new technology for producing silicon epitaxial wafers and presented three scientific theses, theoretically expounding the question.

At present, the semiconductor equipment department of this university, Shang-hai Component Parts Plant No 5 and other cooperating units are continuing to conduct in-depth research and are determined to score more ideal achievements.

Source: Peking NCNA Domestic Service in Chinese 0147 GMT Sep 78 OW

#### IV. CHEMICAL INDUSTRY

Item: Hei-shan Hsien Chemical Fertilizer Plant  
[7815 1472 4905 0553 5142 0617]

Location: Hei-shan County, Liaoning, PRC

Data: Since 1977, this plant has solved the problems of low nitrogen content in its liquid ammonia and of high production cost. It has increased the nitrogen content of liquid ammonia from 7 to 14 percent and boosted its output substantially. Because of reduced production cost, the ex-factory price of liquid ammonia has declined from 110 to 90 yuan per metric ton, thus saving for the local communes and brigades some 400,000 yuan yearly.

Source: Peking PEOPLE'S DAILY 14 Aug 78 p 3

Item: Chiao-ling Hsien Nitrogenous Fertilizer Plant  
[5604 1545 4905 8644 5142 0617]

Location: Chiao-ling County, Kwangtung, PRC

Data: This new plant with an annual synthetic ammonia output of 3,000 metric tons has been put into operation recently. The ammonium hydrocarbonate produced by this plant meets the state quality standards. The plant will provide the farmland in Chiao-ling County with an additional 60 catties of chemical fertilizer per mou.

Source: Hong Kong CHUNG-KUO HSIN-WEN 7 Aug 78 p 4

Item: Ying-t'an Chemical Plant  
[7751 3389 0553 1562 0617]

Location: Ying-t'an, Kiangsi, PRC

Data: Reorganization, improved management, reduced consumption of electric power and raw materials, and lowered production costs permitted this plant to make a profit of 804,000 yuan in more than 6 months this year, surpassing the annual profits plan by 23.7 percent.

Source: Peking KWANGMING DAILY 26 Aug 78 p 4

Item: Chia-ting Chemical Fertilizer Plant  
[0857 1353 0553 5142 0617]

Location: Shanghai, PRC

Data: This plant recently shipped 270 metric tons of ammonium hydrocarbonate to the rural areas to make up for previous underweight shipment. The plant produces 60,000 metric tons of ammonium hydrocarbonate annually.

Source: Shanghai City Service in Mandarin 1300 GMT 23 Aug 78 OW

## V. FUEL AND POWER INDUSTRIES

Item: Ho-lan-shan Area Coal Mining Center  
[6320 5695 1472 0575 3561 3516 1562 2814 1015 0966]

Location: Ho-lan-shan, Ninghsia Hui AR, PRC

Data: This "industrial base" now has eight pairs of large- and medium-sized shafts and an open-pit coal mine, has explored four coal-fields, including the Shih-tsui-shan, Shih-t'an-ching, Ju-chi-kou and Hu-lu-ssu-t'ai, and has built more than 10 large and medium-scale factories which serve coal production, to initially become a complete coal industrial system. With the exploration of new coalfields and the completion of a large-sized coal-dressing plant, this mining center is capable of turning out dressed coal and anthracite to supply 350 enterprises in Kansu, Shensi, Inner Mongolia, Tsinghai, Hopeh, and Ninghsia for iron and steel production and chemical fertilizer production. Since 1970, this center has built five large- and medium-sized coal mining machinery plants and repair plants and produced over 20 different types of special machinery and thousands of spare parts and accessories for other localities.

Source: Hong Kong CHUNG-KUO HSIN-WEN 8 Aug 78 p 2

Item: Ch'uan-nan Mining Area [Natural Gas Field]  
[1557 0589 4349 0575]

Location: Lu-chou City, Szechwan Province, PRC

Data: During the first half of 1978, workers here increased their speed of well drilling operations by 40 percent, as compared with the comparable period of 1977. Their performances on such production indexes as drilling footage, natural gas extraction and transportation, carbon black output, and gross industrial production value were quite satisfactory.

Along with the expansion of large-scale prospecting and exploration and gas pipeline network in the Ch'uan-nan Natural Gas Field, Lu-chou and Ch'eng-tu cities established two large-sized chemical plants with a daily synthetic ammonia output of 300,000 metric tons. Two more chemical plants of the same scale have also been built southeast of Lu-chou inside the border of Kweichow Province and southwest of Lu-chou inside the border of Yunnan Province. The natural gas produced from this area is transported to factories and mines in Ch'eng-tu, Lu-chou, Na-ch'i, Yung-ch'uan, Ta-chu, Ch'ih-shui, and An-pien via thousand miles of pipeline.

Source: Hong Kong CHUNG-KUO HSIN-WEN 18 Aug 78 p 5

Item:       Huai-pei Power Plant  
          [3232 0554 7193 0617]

Location:   Huai-pei, Anhwei Province, PRC

Data:       Following the construction of a 125,000-KW generating unit 10 months ago, this plant has recently built another unit of comparable generating capacity. The plant uses the rich coal deposits from the nearby Huai-pei Coal Mine for power generation, thereby effecting big savings from transportation costs.

Source:     Hong Kong CHUNG-KUO HSIN-WEN 16 Aug 78 p 2

Item:       Shuang-k'eng Hydroelectric Power Station  
          [7175 0977 3055 7193 4541]

Location:   Chieh-yang County, Kwangtung, PRC

Data:       Since it went into operation in May 1978, this new station has been operating regularly. Located in the Hsiao-pei-shan Region bordering Chieh-yang, Feng-shun, and Ch'ao-an, this station is equipped with two generating units and has a total power of 4,320 kilowatts. Its electric power output volume is greater than the county's aggregate total hydropower and thermal power output. The water flows out from this station can also be utilized to irrigate 32,000 mou of nearby hilly land cultivated by the Yun-lu and P'u-t'ien communes.

Source:     Hong Kong CHUNG-KUO HSIN-WEN 7 Aug 78 p 5

Item: Ch'ang-kuang Coal Mining Company  
[7022 1684 3561 4349 0361 0674]

Location: Chekiang Province, PRC

Data: During the period when the "gang of four" was running amuck, this company incurred a loss of 10 million yuan annually. Since the crushing of the gang, it has taken steps to strengthen its management and to improve production. By the end of July this year, its coal output was 73 percent above that of the same 1977 period. The original plan for the first half of 1978 permitted a loss of 1.75 million yuan, and the company reported a surplus of 700,000 yuan instead.

Source: Peking KWANGMING DAILY 26 Aug 78 p 4

Item: Wu-ta Mining Administration Bureau  
[3527 6671 4349 0523 1444]

Location: Inner Mongolia AR, PRC

Data: After fulfilling the crude coal production for the first half of the year 19 days ahead of time, this bureau overfulfilled the state production target for July by 5 percent. The bureau's total coal output in the January-July period reached 2,727,600 metric tons, an increase of 15.1 percent over the same period last year. Net profits amounted to 7.6 million yuan. The bureau increased coal output by an average of 700,000 metric tons annually in the 3 years from 1975 to 1977. The coal output in these 3 years equals the total coal output in the 8 years preceding the Cultural Revolution. On 10 August, the bureau held an oath-taking rally, pledging to work vigorously in August and September to greet the 1 October National Day with more outstanding achievements. A responsible member of the Regional Economic Commission read a congratulatory message from the regional party and revolutionary committees to the party committee and whole staff and workers of this bureau. The message praised the bureau's outstanding achievements in recent years.

Source: Huhehot Inner Mongolia Regional Service in Mandarin 1100 GMT  
16 Aug 78 OW

Item: Pen-ch'i Mining Administration Bureau  
[2609 3305 4349 0523 1444]

Location: Pen-ch'i, Liaoning, PRC

Data: The (Tsai-tun), (Shan-hsi) and Niu-hsin-t'ai [3662 1800 0669] coal mines of this bureau set new records in raw coal production. No 308 Coal Cutting Team of the (Tsai-tun) Coal Mine produced an additional 900 metric tons of raw coal from 1 July to 12 August. The (Shan-hsi) Coal Mine produced an additional 4,300 metric tons of raw coal from July to early August. The Niu-hsin-t'ai Coal Mine overfulfilled the state assigned raw coal production plan by 2.1 percent in July and produced an additional 2,180 metric tons of raw coal in August as compared to July.

Source: Shenyang Liaoning Provincial Service in Mandarin 1100 GMT  
19 Aug 78 SK

Item: Tzu-po Mining Administration Bureau  
[3245 0590 4349 0523 1444]

Location: Tzu-po, Shantung, PRC

Data: The Hung-shan [3163 1472] Coal Mine under this bureau is among the first group which was cited as a Taching-type enterprise. The coal production of the mine was low in the past, but after the National Coal Mine Work Conference, at which the coal mine was criticized for the low quality of its coal, it redoubled its efforts and substantially raised the quality. The ash content of coal decreased by 0.95 percent as compared with that of the plan for July. Some 80.8 percent of the coal shipped out met the required quality standard in June and the percentage rose to 84.6 in July and to 96.67 in early August.

Source: Tsinan Shantung Provincial Service in Mandarin 1130 GMT 21 Aug 78 SK



Item: Ling-shui-ho Power Plant  
[0407 3055 3109 4099 7193 0617]

Location: Lu-ta City, Liaoning Province, PRC

Data: The main project of this new-type thermal power plant has been completed. Since it started trial operation at the end of 1977, the plant's first 100,000-kilowatt generating unit has been satisfactorily meeting the designed requirements.

Source: Peking CHUNG-KUO HSIN-WEN 28 Jul 78 p 2

Item: Mu-tan-chiang Power Plant No 2  
[3665 0030 3068 4099 7193 0059 0617]

Location: Mu-tan-chiang, Heilungkiang, PRC

Data: The construction of this plant began on 25 May. The plant's designed capacity is 600,000 kilowatts. The first stage will be to install generators capable of producing 200,000 kilowatts of electricity.

Source: Harbin Heilungkiang Provincial Service in Mandarin 1100 GMT  
29 Jul 78 OW

Item: (Hsing-ho) Power Plant  
[.... .... 7193 0617]

Location: Liaoning Province, PRC

Data: This plant generated an additional 16 million kilowatt-hours of electricity and saved 4,490 metric tons of standard coal for the state in July. Its major economic targets were fulfilled or surpassed.

Source: Shenyang Liaoning Provincial Service in Mandarin 1100 GMT 7 Aug 78 SK

Item: Ho River Reservoir  
[0678 3109 3055 1655]

Location: Hsin-hsing County, Kwangtung, PRC

Data: The largest of its kind in Hsin-hsing County, this reservoir has a power station equipped with three generating units. With an installed capacity of 2,400 kilowatts, the station can generate enough electric power to supply the county seat and the nearby communes.

Source: Hong Kong CHUNG-KUO HSIN-WEN 7 Aug 78 p 4

Item: An-ch'i Coal Mine  
[1344 3305 3561 4349]

Location: An-ch'i County, Fukien, PRC

Data: This mine produces 90,000 metric tons of coal annually, sufficient to meet the needs of local power, chemical fertilizer, and cement plants.

Source: Hong Kong CHUNG-KUO HSIN-WEN 2 Aug 78 p 7

Item: Liao-ning Capital Construction Engineering Corps  
[6697 1380 1015 2609 1696 6080 1562 4453 0365 0957]

Location: Liaoning Province, PRC

Data: Unit 004174 of this corps has built a domed coal store house, which could have taken half a year to build in the past, in only 13 days by using a construction technique which was newly created this year on the coal capital construction front of China. The storage house is 20 meters high, 12 meters in diameter and is capable of storing 7,200 metric tons of coal.

Source: Shenyang Liaoning Provincial Service in Mandarin 1100 GMT  
21 Aug 78 SK

Item: Liao-ning Geological Team No 1  
[6697 1380 0966 6347 0001 7130]

Location: Liaoning Province, PRC

Data: Unit 60238 of this team, one of the 10 outstanding units on the Liaoning geological front, has scored good achievements every month in the first half of this year. By 6 August, the unit has drilled a total of 5,501 meters, thus prefulfilling its annual state-assigned drilling task by 147 days and showing an increase of 130.5 percent as compared with that of 1977, a year which scored the highest level in drilling. The average monthly drilling footage per machine tool was 963 meters, which is the highest record in small-calibre diamond drilling in Liaoning Province.

Source: Shenyang Liaoning Provincial Service in Mandarin 1100 GMT  
21 Aug 78 SK

## VI. MACHINE-BUILDING INDUSTRY

Item: Nan-ching Machine Tool Plant No 2  
[0589 0079 4574 0056 2894 1643 0617]

Location: Nanking, Kiangsu, PRC

Data: With the help of the Nan-ching Electrically Controlled Equipment Plant, Nan-ching Motor Vehicle Manufacturing Plant, and Wu-hsi Measuring and Cutting Tools Plant, this plant designed and trial manufactured two high-efficiency hobbing machines--a fully automatic YZ3132 and a semi-automatic YC3132. The machine tools' maximum processing diameter is 320 millimeters and the maximum processing modulus is 8. The new machine tools adopt high-grade and high-speed steel hobs to process work. Under ordinary conditions, the cutting speed can reach 80-100 meters/minute and the feed of cutting tools can reach 4-6 millimeters/workpiece per revolution. Twelve workpieces can be placed at one time and can be processed continuously.

[Photos available]

Source: Shanghai K'O-HSUEH HUA-PAO [Science Pictorial] No 6, Jun 78 p 13

Item: Pai-se General-Purpose Machinery Plant  
[4102 5331 6639 3938 2623 2750 0617]

Location: Pai-se, Kwangsi, PRC

Data: Recently this plant succeeded in trial producing a 147 circular power-driven sprayer which has an automatic moving and spraying capacity of 12.8 mm and covers an area of 11,520 square meters. Employing a spraying system of automatic moving pipes, the sprayer itself measures 417 meters in length and 4.1 meters in height and it has an [assembled] motive power of 120 horsepower. It takes 55.8 hours to complete one circle and covers 920 mou of farmland and it can climb a slope with a gradient of 9 to 11.

Source: Hong Kong CHUNG-KUO HSIN-WEN 14 Aug 78 p 13

Item: Ch'ing-hai Heavy Machine Tool Plant  
[7230 3189 6850 0992 2623 1643 0617]

Location: Sining, Tsinghai, PRC

Data: This plant, which officially went into operation in 1972, has been cited as an outstanding unit in the nation's machine-building industry for high product quality. This year, a team of technicians and veteran workers, led by a deputy chief engineer of this plant, visited 60 end-users in 19 provinces, municipalities, and autonomous regions and examined the quality of 79 machine tools manufactured by this plant. They found out that the pressure of the static pressure axle pumps of the machine tools was unstable, conjugation of worm gears, poor, and the precision of oil cylinder holes not up to specifications. With these problems in mind, the plant organized 10 teams to improve the designs, production techniques, and assembly of its products.

Source: Peking PEOPLE'S DAILY 28 Jul 78 p 3

Item: Chien-hua Machinery Plant  
[1696 0553 2623 2750 0617]

Location: Kwangsi, PRC

Data: The NJ-I rain-making rocket recently built by this plant has been put into extensive use in the hilly regions of western Kwangsi during early spring this year and it has been producing good results. The rain-making rocket has a lift height of more than 2,500 meters and is steady in flight. Its launch reliability rate is over 90 percent. Twenty-nine launchings of the rocket made in 10 counties, including Te-pao and Ching-hsi, during April and May 1978 resulted in extensive rainfalls. The amount of rainfalls reached 90 centimeters, benefiting 1.5 million mou of farmland.

Source: Hong Kong CHUNG-KUO HSIN-WEN 14 Aug 78 p 13

Item: Shih-chia-chuang City Diesel Engine Plant  
[4258 1367 1641 1579 2693 3111 2623 0617]

Location: Shih-chia-chuang, Hopeh, PRC

Data: This plant has drawn severe criticism from consumers for failing to improve the quality of its products in accordance with the instructions of the party Central Committee and the State Council and for failing four quality tests conducted by the First Ministry of Machine-Building in 1977. Up to the end of 1977, some 717 diesel engines had not been permitted to leave the plant for failing the quality tests. The plant manufactures 60-hp diesel engines, each priced at 5,400 yuan.

Source: Peking NCNA Domestic Service in Chinese 0140 GMT 5 Jul 78 OW

Item: Chi-ning Motive Power Machinery Plant  
[3444 0589 0520 0500 2984 0617]

Location: Tsinan, Shantung, PRC

Data: This plant is striving to improve the quality of its product--the "No 195 diesel engine." Since 1967, the plant has produced more than 45,000 sets of such engines but quality has been very poor. To improve the quality of its product, the plant has strengthened quality control over all engines produced this year, recalled and readjusted the approximately 500 unsold engines throughout Chi-ning Prefecture, and guaranteed to fix all problem engines, which were produced before 1977, at the plant's expense. By tightening quality control, the plant expects all its products to reach first-grade level by this September.

Source: Peking Domestic Service in Mandarin 1000 GMT 12 Aug 78 OW

Item: Li-ming Machinery Plant  
[7812 2494 2894 2750 0617]

Location: Mukden, Liaoning, PRC

Data: In July, this plant overfulfilled its monthly production plan by 42 percent, showing an increase of 100 percent over that of the same 1977 period and improved its product quality.

Source: Shenyang Liaoning Provincial Service in Mandarin 1100 GMT  
5 Aug 78 SK



## VII. AGRICULTURAL MACHINERY INDUSTRY

Item: P'an-yu Hsien Agricultural Machinery Repair and Manufacturing  
Plant No 2  
[3972 4417 4905 6593 2623 0208 6644 0059 0617]

Location: P'an-yu County, Kwangtung, PRC

Data: In cooperation with the Kwangtung Chemical Research Institute, this plant has successfully produced Adhesives I and II for repairs of farm machinery. Applied in place of the traditional methods of reveting, welding, and bolting, the adhesives do not require special equipment for heating, pressurizing, and solidifying. It is highly adhesive, has excellent sealing property, and is resistant to water, oil, and chemicals in general. It is also inexpensive to make. In 1976, the Agricultural Mechanization Bureau of the Ministry of Agriculture and Forestry called a meeting at this plant to promote the use of the additives among the local farm machinery repair departments.

Source: Hong Kong CHUNG-KUO HSIN-WEN 29 Jul 78 p 1

Item: Chu-chou Tractor Plant  
[2701 3166 2151 2139 2623 0617]

Location: Chu-chou, Hunan, PRC

Data: This plant, which primarily manufactures 12-hp hand-guided tractors, performs most of the production processes--from casting, forging, and making parts to the final assembly--by itself. Its production cost per hand-guided tractor reaches as high as 3,400 yuan, while its labor productivity only amounts to 4,900 yuan. The rate of its up-to-standard major parts is only 50 percent.

Source: Peking PEOPLE'S DAILY 28 Aug 78 p 2

Item: Ch'ang-chou City Tractor Plant  
[1603 1558 1579 2151 2139 2623 0617]

Location: Ch'ang-chou, Kiangsu, PRC

Data: Because it has adopted a system of cooperating with other specialized factories in the production of hand-guided tractors, this plant has been able to keep the production cost per tractor down to 1,900 yuan and to raise its labor productivity to 40,000 yuan. The quality of its tractor products has steadily been the high grade level.

Source: Peking PEOPLE'S DAILY 28 Aug 78 p 2

Item: Hung-wei Grain Machinery Plant  
[4767 5898 4752 2623 0617]

Location: Wu-hsi, Kiangsu, PRC

Data: In cooperation with the Wu-hsi Grain Scientific Research Institute in Kiangsu, the Tzu-po Grain and Oil Machinery Plant, and the Shang-hai Flour Mill, this plant designed and built the MQ-8 and MQ-4 pneumatic flour mills as part of a series of equipment. The machines are equipped with pneumatic, electronic transducing, and blockage warning mechanisms and bimetal, spherical, adjusting, and sliding bearings. Ninety-one percent of the parts for the medium-sized pneumatic flour mill series are interchangeable.

Source: Peking K'O-HSUEH SHIH-YEN [Scientific Experiment] No 8, Aug 78 p 37

Item: An-ch'i Hsien Agricultural Machinery Plant  
[1344 3305 4905 6593 2623 0617]

Location: An-ch'i County, Fukien, PRC

Data: This plant's products include electric generators, water turbines, tea-processing machines, and grain threshers. [No production figures given]

Source: Hong Kong CHUNG-KUO HSIN-WEN 2 Aug 78 p 7

Item: Lo-ch'ing Hsien Agricultural Machinery Experimental Plant  
[5012 3237 4905 6593 2623 6107 7526 0617]

Location: Lo-ch'ing County, Chekiang Province, PRC

Data: This plant actively supports agricultural production by producing threshing machines. By mid-July, it had produced 290 power-operated and 123 manually operated threshing machines to support summer reaping.

Source: Hangchow Chekiang Provincial Service in Mandarin 1100 GMT  
22 Jul 78 OW

## VIII. MISCELLANEOUS INDUSTRIES

Item: Shen-yang Red Brick Plant No 4  
[3088 7122 4767 4331 4574 0934 0617]

Location: Mukden, Liaoning, PRC

Data: With the help of the Shen-yang City Building Materials Research Institute, this plant has after 2 years' efforts "initially" designed and successfully built a rice straw board extruding machine and turned rice straws into board materials. The volume of the board produced by this machine is 340-450 kilograms per cubic meter. The effective mean distributed load of the board materials is 142 kilograms and the maximum bend is 10.2 mm.

Source: Shanghai K'O-HSUEH HUA-PAO [Science Pictorial] No 6, Jun 78 p 13

Item: Kuang-tung Glass Plant  
[1684 2639 3788 3863 0617]

Location: Canton, Kwangtung, PRC

Data: A large-sized melting furnace with a daily glass output of 125 metric tons was recently built and put into operation at this plant. The largest of its kind in China, this new glass-making melting furnace has four automatic production lines and is electronically controlled. When in full operation, the furnace can turn out over 100 bottles and pots per minute.

Source: Hong Kong CHUNG-KUO HSIN-WEN 9 Aug 78 p 4

Item: Lao-tung Glass Plant  
[0525 0520 3788 3863 0617]

Location: Shanghai, PRC

Data: With the assistance of the Shanghai Building Construction Research Institute, this plant has after repeated experiments evolved a one-step method of producing moisture-proof ultra-fine glass wool to fill a gap in China's glass wool industry. The basic characteristics of the product are as follows:

1. Small in volume--12-30 kilograms per cubic meter
2. Fine fiber--degree of fineness is around 3 microns
3. High strength--average longitudinal breaking load is 4.55 kilograms
4. Excellent heat retention--heat conduction coefficient is 0.03 kilocalorie/meter·hour·degree. Heat retention rate is 84.6 percent, much higher than cotton and dacron.
5. Excellent sound absorption characteristics, ideal for making mufflers or silencers

[Continued on card 2]

Source: Shanghai K'O-HSUEH HUA-PAO [Science Pictorial] No 6, Jun 78 p 16

[Continued from card 1]

Item: Lao-tung Glass Plant  
[0525 0520 3788 3863 0617]

Location: Shanghai, PRC

Data: 6. Excellent moisture-proof properties  
7. Incombustibility  
8. Resistant to acids, alkali, aging, and mildew.

This product finds wide applications in the aviation, shipbuilding, petrochemical, building construction, and metallurgical industries.

Source: Shanghai K'O-HSUEH HUA-PAO [Science Pictorial] No 6, Jun 78 p 16

Item: Shang-hai Enamel Plant No 2  
[0006 3189 2288 3911 0059 0617]

Location: Shanghai, PRC

Data: With the support of units concerned, this plant has successfully trial produced a far infrared enamel radiation heater. Two kinds of far infrared enamel radiation heaters--tabular and tubular shaped--are now being manufactured here.

Source: Shanghai K'O-HSUEH HUA-PAO [Science Pictorial] No 6, Jun 78 p 13

Item: Pai-se Chen Winery  
[4102 5331 6966 6794 0617]

Location: Pai-se, Kwangsi, PRC

Data: In 1977, this plant converted a distillation tower with a daily output of 20,000 catties into a double-boiling stainless steel distillation tower with a daily output of 40,000 catties, bringing such operations as pre-heating, freezing, cooling, and yeast-removing into one system. During the same year, workers here introduced eight major technical innovations to electronically control the entire wine-making process. The winery's 1977 output was 14.9 percent above that of 1976.

Source: Hong Kong CHUNG-KUO HSIN-WEN 14 Aug 78 p 13

Item: Shan-nan Prefecture Grain and Oil Processing Plant  
[1472 0589 0966 0575 4752 3111 0502 1562 0617]

Location: Shan-nan Prefecture, Tibet, PRC

Data: This plant has grown from a small hand-operated mill to a mechanized factory with several workshops. The plant's output of rapeseed oil has increased from 50,000 catties to more than 1 million catties each year. In addition, it now produces more than 3 million catties of flour and more than 100,000 dried noodles each year.

Source: Lhasa Tibet Regional Service in Mandarin 1300 GMT 26 Jul 78 OW

Item: Shang-hai Printing and Dyeing Plant No 2  
[0006 3189 0603 2676 0059 0617]

Location: Shanghai, PRC

Data: This plant has a 1,500-kilowatt generator, which generates power by using waste heat from a neighboring factory. In the past 6 years, this small generator has produced more than 35 million kilowatt-hours of electricity, which is enough for the plant itself with the surplus used to support the local power grid.

Source: Shanghai City Service in Mandarin 0000 GMT 25 Jul 78 OW

Item: Chi-lin Province Construction Engineering Company No 1  
[0679 2651 4164 1696 4639 1562 4453 0001 0361 0674]

Location: Kirin Province, PRC

Data: This company, in cooperation with the Kirin Provincial Architectural Design Institute, recently built a four-story building with big wall panels made of cinder, fluorspar powder or volcanic ash. The building contains three units occupying a total space of 1,774 square meters. The wall panels used are light in weight but have a high strength and a good anti-seismic property.

Source: Changchun Kirin Provincial Service in Mandarin 2200 GMT 16 Aug 78 SK

CSO: 4006

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